

~~-In Figure 3, several of the elements are the same as in Figure 1. Reference numeral 13 in Figure 3 is the same as reference numeral 3 in Figure 1. Numeral 14 is the same as numeral 4. Numeral 15 is the same as numeral 5. Numeral 16 is the same as numeral 6. Numeral 19 is the same as numeral 10.~~

~~In Figure 4, several of the elements are the same as in Figure 1. Reference numeral 23 in Figure 4 is the same as reference numeral 3 in Figure 1. Numeral 24 is the same as numeral 4. Numeral 25 is the same as numeral 5. Numeral 26 is the same as numeral 6. Numeral 29 is the same as numeral 10.~~

~~In Figure 5, several of the elements are the same as in Figure 1. Reference numeral 34 in Figure 5 is the same as reference numeral 3 in Figure 1. Numeral 35 is the same as numeral 4. Numeral 36 is the same as numeral 5. Numeral 37 is the same as numeral 6. Numeral 38 is the same as numeral 7. Numeral 41 is the same as numeral 10.~~

~~In Figure 7, several of the elements are the same as in Figure 1. Reference numeral 58 in Figure 7 is the same as reference numeral 5 in Figure 1. Numeral 59 is the same as numeral 6. Numeral 60 is the same as numeral 7. Numeral 63 is the same as numeral 10.-~~

At pages 17-18, please amend the paragraph beginning at page 17, last line and ending at page 18, line 22 to read as follows:

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~~-FIG. 3 is a schematic cross-sectional view illustrating the hydrogen purifying apparatus in Embodiment 1-2. A provision of the heat exchange fin 20 close to the side wall 12 around the downstream side of the catalyst layer 11 helps to heat the downstream side of the catalyst layer 11. Such structure also facilitates cooling the reformed gas by a heat exchanger 17. Moreover, since the reformed gas flow pathway thermally insulates the catalyst layer 11, the temperature distribution in the center and the periphery of the catalyst layer 11 becomes homogeneous, thereby enabling efficient oxidation of CO. Due to the structure of the apparatus such that the reformed gas passes through the catalyst layer 11 in an opposing direction of stream to that before passing through the heat exchanger 17, the reformed gas at elevated temperature can exchange heat with the downstream side of the catalyst layer 11 and is cooled. Because the reformed gas thus cooled then passes along the upstream side of the catalyst layer 11, the~~

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temperature of the catalyst layer 11 can be lowered at the upstream side and elevated at the downstream side. As a result, the temperature distribution can be optimized in response to selective oxidation of CO by the catalyst.

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At page 19, please amend the paragraph beginning at line 2 and ending at line 16, to read as follows:

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The hydrogen purifying apparatus of Embodiment 1-3 in accordance with the present invention will be described herein. As shown in FIG. 4, the hydrogen purifying apparatus in accordance with the present embodiment comprises a reaction chamber 28 formed on the periphery of a tube-shaped reformed gas flow pathway 22, a honeycomb catalyst layer 21 formed inside the reaction chamber 28, and a heat exchange fin 30 provided on a wall of the reformed gas flow pathway neighboring the downstream side of the catalyst layer 21. The operation and effect of the apparatus of this embodiment are mostly similar to those of the apparatus of Embodiment 1-2. Therefore, the description of this embodiment will be focused on different features from those of Embodiment 1-2.

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At pages 40-41, please amend the paragraph beginning at page 40, line 26 and ending at page 41, line 9, to read as follows:

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The catalyst reaction segment 118 accommodates therein a first catalyst layer 118a and a second catalyst layer 118b upstream from the catalyst reaction segment 118 to downward in this order. The catalyst reaction segment 118 also accommodates a temperature measuring segment 121a for measuring and indicating the temperature of the first catalyst layer 118a and a temperature measuring segment 121b for measuring and indicating the temperature of the second catalyst layer 118b. For the first catalyst layer 118a, a catalyst layer with a less number of honeycomb lattices per unit area than that of the second catalyst layer 118b is used. The remaining parts are arranged in the same manner as in Embodiment 2-3.--